

**TO BE PUBLISHED**  
**IN THE UNITED STATES DISTRICT COURT**  
**FOR THE NORTHERN DISTRICT OF IOWA**  
**WESTERN DIVISION**

MICHAEL McGUIRE and ELAINE  
McGUIRE, and MICHAEL McGUIRE  
as Natural Father and Next Friend of  
COLLEEN McGUIRE, a Minor,

Plaintiffs,

vs.

DAVIDSON MANUFACTURING  
CORPORATION, and LOUISVILLE  
LADDER GROUP LLC,

Defendants.

No. **C01-4063-PAZ**

**ORDER ON MOTION TO EXCLUDE  
EXPERT TESTIMONY**

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**TABLE OF CONTENTS**

<b><i>I.</i></b>	<b><i>INTRODUCTION</i></b>	<b><i>2</i></b>
<b><i>II.</i></b>	<b><i>APPLICABLE LAW</i></b>	<b><i>3</i></b>
<b><i>III.</i></b>	<b><i>DISCUSSION</i></b>	<b><i>7</i></b>
<b><i>A.</i></b>	<b><i>Wood Experts</i></b>	<b><i>7</i></b>
<b><i>B.</i></b>	<b><i>Engineering Experts</i></b>	<b><i>12</i></b>
<b><i>IV.</i></b>	<b><i>CONCLUSION</i></b>	<b><i>13</i></b>

## ***I. INTRODUCTION***

This matter is before the court on the motion (Doc. No. 25) of Louisville Ladder Group LLC (“Louisville”) to exclude portions of the testimony of the plaintiffs’ experts pursuant to *Daubert v. Merrill Dow Pharmaceutical, Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993), as extended by *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 119 S. Ct. 1167, 143 L. Ed. 2d 238 (1999). Louisville filed its motion on December 10, 2002, together with a supporting brief and exhibits (Doc. No. 26). The plaintiffs filed their resistance and a supporting brief on December 26, 2002. (Doc. Nos. 32 & 33) The court held a hearing on the motion on January 6, 2003. The plaintiffs were represented at the hearing by Mark E. Spellman and Michael Figenshaw. Louisville was represented by William A. Lynch, Eric E. Packel, and Daniel DeKoter.

This case arises from an accident in which the plaintiff Michael McGuire fell from a six-foot wooden stepladder. Mr. McGuire proposes to call experts to testify the ladder failed because it was defective. Louisville seeks to prohibit the plaintiffs’ experts Glenn Oren and Monlin Kuo, both “wood” experts, “from opining (1) that the wood used in the ladder was brash or brittle due to high temperature drying; and (2) that brash wood caused the accident.” (Doc. No. 25, p. 1) Louisville also seeks to prohibit the plaintiffs’ experts Jerry Hall and J.B. Severt, both engineers, “from testifying that any alleged defects caused the accident.” (*Id.*) Louisville claims the experts’ opinions are not reliable under the *Daubert* standards “because the experts failed to apply reliable methodology, failed to test their opinions or submit their opinions to peer review, and based their opinions on conjecture and speculation.” (Doc. No. 26, p. 4, citing *Daubert* and *Kumho*).

The court first will discuss the standards applicable to Louisville’s motion, and then will examine the particular testimony Louisville seeks to exclude from the trial and apply the applicable law to determine whether the testimony should be excluded.

## **II. APPLICABLE LAW**

In a diversity case in federal court, the question of whether expert testimony is admissible is a matter governed by federal, rather than state, law. *Clark v. Heidrick*, 150 F.3d 912, 914 (8th Cir. 1998) (citing *Fox v. Dannenberg*, 906 F.2d 1253, 1258 (8th Cir. 1990)); see *Wheeling Pittsburgh Steel Corp. v. Beelman River Terminals, Inc.*, 254 F.3d 706, 711 (8th Cir. 2001) (“*Wheeling*”).

In *Daubert*, the Supreme Court explained that under the Federal Rules of Evidence, and particularly Rule 702, a trial judge is charged with a gate-keeping responsibility to ensure all expert testimony or evidence admitted at trial is relevant, reliable, and “‘will assist the trier of fact to understand the evidence or to determine a fact in issue.’” *Daubert*, 509 U.S. at 589, 113 S. Ct. at 2795 (quoting Fed. R. Evid. 702; emphasis removed). The Court noted an expert witness “is permitted wide latitude to offer opinions, including those that are not based on firsthand knowledge or observation. . . . Presumably, this relaxation of the usual requirement of firsthand knowledge . . . is premised on an assumption that the expert’s opinion will have a reliable basis in the knowledge and experience of his discipline.” *Daubert*, 509 U.S. at 592, 113 S. Ct. at 2796.

When proposed expert testimony is scientific in nature, the trial judge must make “a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue.” *Daubert*, 509 U.S. at 592-93, 113 S. Ct. at 2796. Although the Court expressly declined to set out a definitive checklist or test for making this determination, the Court noted several key areas of inquiry that ordinarily will apply “in determining whether a theory or technique is scientific knowledge that will assist the trier of fact,” including: (1) whether the theory or technique “can be (and has been) tested”; (2) “whether the theory or technique has been subjected to peer review and publication”; (3) the “known or potential rate of error . . . and the existence and maintenance of standards controlling the technique’s

operation”; and (4) whether the theory or technique has obtained general acceptance within the community. *Daubert*, 509 U.S. at 593-95, 113 S. Ct. at 2796-97.

The Court observed that this inquiry is flexible. “Its overarching subject is the scientific validity -- and thus the evidentiary relevance and reliability – of the principles that underlie a proposed submission. The focus, of course, must be solely on principles and methodology, not on the conclusions that they generate.” *Daubert*, 509 U.S. at 594-95, 113 S. Ct. at 2797. The trial court’s ultimate task is to ensure “that an expert’s testimony both rests on a reliable foundation and is relevant to the task at hand. Pertinent evidence based on scientifically valid principles will satisfy those demands.” *Daubert*, 509 U.S. at 597, 113 S. Ct. at 2799. See *United States v. Boswell*, 270 F.3d 1200, 1204 (8th Cir. 2001)

In *Kumho*, the Court extended the *Daubert* inquiry to *all* types of expert testimony, not just to scientific testimony. The Court noted that in the trial court’s inquiry into the relevance and reliability of expert testimony, the trial court *may* consider the factors which the *Daubert* Court suggested might be relevant. Noting that in some cases an expert’s personal knowledge or experience may be the focus, as opposed to the scientific foundation of an opinion, the Court held the *Daubert* factors “may or may not be pertinent in assessing reliability, depending on the nature of the issue, the expert’s particular expertise, and the subject of his testimony.” *Kumho*, 526 U.S. at 150, 119 S. Ct. at 1175 (citation omitted). The circumstances of each particular case will determine the precise nature of the inquiry to be undertaken by the trial court in performing its gate-keeping function under *Daubert*. *Id.*

The *Kumho* Court explained further, “The trial court must have the same kind of latitude in deciding *how* to test an expert’s reliability, and to decide whether or when special briefing or other proceedings are needed to investigate reliability, as it enjoys when it decides *whether or not* that expert’s relevant testimony is reliable.” *Kumho*, 526 U.S. at 152, 119 S. Ct. at 1176 (emphasis by the Court).

In its capacity as gatekeeper, the trial court is to “separate[ ] expert opinion evidence based on ‘good grounds’ from subjective speculation that masquerades as scientific knowledge.” *Glastetter v. Novartis Phar. Corp.*, 252 F.3d 986, 989 (8th Cir. 2001). Although the trial court has substantial latitude to determine whether offered expert testimony is reliable, the court should keep in mind that Rule 702 reflects a liberalized approach to the admissibility of expert testimony. See *Reed & Sons Partnership*, 280 F.3d 1212, 1215 (8th Cir. 2002) (“Trial courts have substantial latitude to determine whether specific expert testimony is reliable, and they may consider some or all of the factors listed in *Daubert* . . . when evaluating reliability.”); *In re Air Crash at Little Rock, Ark.*, 291 F.3d 503, 514 (8th Cir. 2002) (same); *Lauzon v. Senco Prods., Inc.*, 270 F. 3d 681, 685-86 (8th Cir. 2001) (“Rule 702 reflects an attempt to liberalize the rules governing the admission of expert testimony,” citing *Weisgram v. Marley Co.*, 169 F.3d 514, 523 (8th Cir. 1999)); *Arcoren v. United States*, 929 F.2d 1235, 1239 (8th Cir. 1991) (Rule 702 is a rule of admissibility rather than exclusion). Trial courts should apply the principle that “[e]xpert testimony is admissible if it is reliable and will help the jury understand the evidence or decide a fact in issue.” *Hartley v. Dillard’s, Inc.*, 310 F.3d 1054, 1060 (8th Cir. 2002). “[D]oubts regarding whether an expert’s testimony will be useful should generally be resolved in favor of admissibility.” *Miles v. Gen. Motors Corp.*, 262 F.3d 720, 724 (8th Cir. 2001) (citing *Clark*, 150 F.3d at 915). See *Lauzon*, 270 F. 3d at 687 n.2 (citing numerous authorities). A determination by a trial court to admit expert testimony is reviewed for abuse of discretion. *General Elec. Co. v. Joiner*, 522 U.S. 136, 143, 118 S. Ct. 512, 139 L. Ed. 2d 508 (1997); *Giles v. Miners, Inc.*, 242 F.3d 810, 812 (8th Cir. 2001).

In *Bonner v. ISP Technologies, Inc.*, 259 F.3d 924, 929 (8th Cir. 2001), the court emphasized that the focus under *Daubert* must be on the expert’s principles and methodology, not the conclusions they generate. See also *United States v. Dico, Inc.*, 266

F.3d 864, 869 (8th Cir. 2001) (“Admissible expert testimony must be grounded upon scientifically valid reasoning or methodology.”) The *Bonner* court explained:

“As a general rule, the factual basis of an expert opinion goes to the credibility of the testimony, not the admissibility, and it is up to the opposing party to examine the factual basis for the opinion in cross-examination. Only if the expert’s opinion is so fundamentally unsupported that it can offer no assistance to the jury must such testimony be excluded.”

*Bonner*, F.3d at 929-30 (quoting *Hose v. Chicago N.W. Transp. Co.*, 70 F.3d 968, 974 (8th Cir. 1995) (internal citations and quotations omitted)); see *Hartley*, 310 F.3d at 1061 (same); *Wood v. Minnesota Min. & Mfg. Co.*, 112 F.3d 306, 309 (8th Cir. 1997) (same); see also *United States v. Dico, Inc.*, 266 F.3d at 869 (“The court must examine both the relevance and the reliability of the proffered testimony, *Blue Dane Simmental Corp. v. Am. Simmental Ass’n*, 178 F.3d 1035, 1040 (8th Cir. 1999), keeping in mind that the focus, of course, must be solely on principles and methodology, not on the conclusions that they generate.”).

Expert testimony also must be “sufficiently tied to the facts of the case that it will aid the jury in resolving a factual dispute.” *Concord Boat Corp. v. Brunswick Corp.*, 207 F.3d 1039, 1055 (8th Cir.) (citing *Daubert’s* “fit” requirement), *cert. denied*, 531 U.S. 979, 121 S. Ct. 428, 148 L. Ed. 2d 436 (2000). Doubts regarding usefulness should generally be resolved in favor of admissibility. *Clark*, 150 F.3d at 915.

With these considerations in mind, the court turns to consideration of Louisville’s motion. The court must determine whether the proffered testimony of each of the plaintiffs’ experts is relevant, reliable, and will assist the trier of fact – in this case, the jury – in understanding the evidence or determining a fact in issue in this case.

### **III. DISCUSSION**

#### **A. Wood Experts**

Monlin Kuo and Glenn M. Oren are “wood” experts retained by the plaintiffs. Dr. Kuo received a Ph.D. in Wood Science and Technology from the University of California-Berkeley in 1977. He has been a professor of Forest Products at Iowa State University since 1980. Dr. Kuo is an expert in the field of wood quality, and over the last ten years has concentrated his studies in the area of wood adhesion and preservation. Dr. Oren received a Ph.D. in Wood Science from Iowa State University in 1994. From the time he obtained his doctorate to the present, he has worked as a wood preservation consultant.

“[A] court should consider a proposed expert’s full range of practical experience as well as academic or technical training when determining whether that expert is qualified to render an opinion in a given area.” *Smith v. Ford Motor Co.*, 215 F.3d 713, 718 (7th Cir. 2000). It is evident to the court that both Dr. Kuo and Dr. Oren are well qualified experts in the field of wood science. Louisville does not really dispute this, but objects primarily to the lack of proper methodology employed by these witnesses, and the absence of relevance of their conclusions to this case. The court finds these experts’ opinions, set forth below, are relevant to the issues in the case and would, if properly supported, be helpful the jury. However, the court’s inquiry under *Daubert* does not end with a determination that these witnesses are qualified experts and their opinions might be useful to the jury. “Once initial expert qualifications and usefulness to the jury are established . . . , a district court must continue to perform its gatekeeping role by ensuring that the actual testimony does not exceed the scope of the expert's expertise, which if not done can render expert testimony unreliable under Rule 702, *Kumho Tire*, and related precedents.” *Wheeling*, 254 F.3d at 715.

Drs. Kuo and Oren submitted a joint report in this case, in which they set forth, *inter alia*, the following opinions, “given to within a reasonable degree of wood science certainty”:

1. They jointly participated in an inspection of the stepladder involved in this case.
2. “The wood used in the construction of the ladder appears to be Southern Pine.”
3. “On observing the subject ladder and the fractured surfaces of the ladder, it is immediately apparent that the wood is ‘brash’.”
4. “Brashness in wood is a condition characterized by low shock resistance i.e., brittleness, . . . [and] causes a wood ‘to fail abruptly without splintering at comparatively small deflections.’ . . . This condition is analogous to breaking a stringy stalk of celery (normal wood) versus the abrupt snapping of a carrot (brash wood).”
5. There are a number of causes of brashness in wood including the presence of compression wood, deterioration by decay fungi, extreme growth rates, presence of juvenile wood, or exposure to high temperatures. These causes “can be investigated via microscopic examination of the wood tissues.”
6. “[M]icroscopic slides were prepared from cubes excised from the ladder adjacent to the fracture surfaces. From these slides it was determined that no decay was apparent, nor was there abnormal wood from compression wood, juvenile, wood, or extreme growth rates.”
7. “The most noteworthy variation occurred during microtomy sectioning[,]” when the experts tried to make 10 to 15 micrometer thick slices for microscopic examination, and “the prepared sections separated along the ray tissues. This is not typical.”
8. “In our opinion, the brashness and the peculiar sectioning difficulties of the material described above can likely be attributed to the manner the wood was dried during the manufacturing process.”
9. High temperature drying of wood can reduce the strength, toughness, and elasticity of the wood.
10. “[I]t is our opinion that the wood utilized in the manufacture of the subject ladder was not suitable for usage as a ladder construction material.”



11. “In our opinion, it is likely the wood irregularities and the brashness of the wood . . . were a substantial factor in causing the breakage of the wood and the ladder collapse which occurred [in this case]. There may have been other manufacturing and/or design defects unrelated to the strength of the wood that many [sic] also have contributed to the collapse of the ladder (i.e., depth of various grooves, etc.)”

(Doc. No. 26, Ex. A) Drs. Oren and Kuo noted these opinions were based on their examination of the ladder, review of “pertinent documents” and a videotape of the accident scene, and their “education, background, training, and experience . . . in the field of wood science.” (*Id.*)

Drs. Oren and Kuo concluded the wood used to construct the ladder was substandard, and this likely was because the wood was dried at a high temperature. (*Id.*, ¶¶ 3, 4, 8, & 9). They arrived at this opinion by investigating all of the known causes of the defects they observed in the wood, and then eliminating all of those causes except for drying at high temperature. (*Id.*, ¶¶ 5 & 6) This methodology, known as “differential analysis,” is “presumptively admissible,” and should be excluded only if it is scientifically invalid. *Glastetter*, 252 F.3d at 989. This methodology has been approved by the Eighth Circuit in other situations:

Although the district court’s gatekeeping function includes an analysis of the reliability of scientific evidence, neither Rule 702 nor *Daubert* requires that an expert opinion resolve an ultimate issue of fact to a scientific absolute in order to be admissible. Compare *Turner [v. Iowa Fire Equip. Co.]*, 229 F.3d [1202,] 1208 [8th Cir. 2000] (differential diagnosis admissible when it identifies “the most probable cause” of a condition) with *Glastetter v. Novartis Pharm. Corp.*, 252 F.3d 986, 989 (8th Cir. 2001) (per curiam) (no abuse of discretion in exclusion of differential diagnosis that is “scientifically invalid”). The only question relevant to the admissibility of the scientific evidence is whether it is sufficiently reliable and relevant to assist the jury’s determination of a disputed issue. *Daubert*, 509 U.S. at 594-95, 113 S. Ct. 2786.

*Bonner*, 259 F.3d at 929; see *Wood v. Minnesota Min. & Mfg. Co.*, 112 F.3d at 310; *Clark*, 150 F.3d at 915 (listing possible causes and eliminating as many as possible is “a scientifically valid method for determining [causation].”)

The court finds the experts’ use of the differential analysis methodology was proper under the circumstances of this case. Although Louisville may well be able to raise significant questions about the conclusions reached by these witnesses, this is not grounds to exclude the testimony. See *Smith v. Ford Motor Co.*, 215 F.3d at 718 (“[W]hen addressing whether expert testimony is reliable the district court should not consider the ‘factual underpinnings’ of the testimony but should determine whether ‘[i]t was appropriate for [the expert] to rely on the test that he administered and upon the sources of information which he employed,’” summarizing the holding in *Walker v. Soo Line R.R. Co.*, 208 F.3d 581, 587 (7th Cir. 2000)). See also *Daubert*, 509 U.S. at 596, 113 S. Ct. at 2798 (“Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.”).

Furthermore, the fact that these experts’ opinions do not go to the ultimate issues in this case does not mean they are not relevant and admissible. See *Smith v. BMW North America, Inc.*, 308 F.3d 913, 919 (8th Cir. 2002) (“[A]n expert’s testimony need not relate directly to the ultimate issue that is to be resolved by the trier of fact, it only need be relevant to evaluating a factual matter.”); *Smith*, 215 F.3d at 720 (same); see also *Clark*, 150 F.3d at 915 (experts who can offer a global understanding of the possible causes of an injury are useful to a jury).

For these reasons, Louisville’s motion to exclude expert testimony is **denied** as it relates to the opinions expressed in paragraphs 1 through 9 of the experts’ report.

On the other hand, there is nothing to indicate these witnesses are qualified to give, or have any scientific basis, for the opinions in paragraphs 10 and 11 of their report. In

fact, when asked in their depositions about the standards for proper construction of ladders and the possible causes of ladder failures, both witnesses admitted these subjects were entirely outside their areas of expertise. Thus, they should not be permitted to testify concerning these opinions. See *Smith v. Rasmussen*, 249 F.3d 755, 758-59 (8th Cir. 2001).

As the Supreme Court held in *Joiner*:

[N]othing either in *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert. A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.

*Joiner*, 522 U.S. at 146, 118 S. Ct. at 519. See *J.B. Hunt Transp., Inc. v. General Motors Corp.*, 243 F.3d 441, 444 (8th Cir. 2001) (“Expert testimony that is speculative is not competent proof and contributes nothing to a legally sufficient evidentiary basis.”) (citing *Concord Boat Corp.*, 207 F.3d at 1057); *In re Air Crash at Little Rock Ark.*, 291 F.3d at 514 (must be adequate nexus between scientific theory and subject of opinion); *Clark v. Takata Corp.*, 192 F.3d 750, 756-57 (7th Cir. 1999); *Weisgram*, 169 F.3d at 521 (expert testimony not reliable where there is lack of nexus between theory and conclusion).

For these reasons, Louisville’s motion to exclude expert testimony is **granted** as it relates to the opinions set forth in paragraphs 10 and 11 of their report. The attorneys for the plaintiffs are instructed to advise these witnesses to make no reference to these opinions in their testimony at trial, and the attorneys are directed to ask no questions of these witnesses at trial that might elicit these opinions.

### ***B. Engineering Experts***

Jerry Hall and J.B. Severt have given extensive depositions and provided detailed reports stating their opinions regarding causation and other related matters in this case. Louisville generally objects to these opinions, and cites tests the witnesses did not perform

and information they were unable to obtain. However, Louisville has pointed to no specific deficiency in the witnesses' proposed testimony under the *Daubert* standards. (See Doc. No. 26, pp. 12-13) The precise nature of Louisville's objections to this testimony was not clarified in response to questioning by the court during the *Daubert* hearing.

From the record, the court can discern no meaningful objection to the testimony of the engineering experts. It appears these experts were "merely applying well-established engineering techniques to the particular materials at issue in this case." *Smith*, 215 F.3d at 720. Louisville's motion to exclude expert testimony is **denied** as it relates to these two experts.

Louisville is of course free to make appropriate objections to the testimony of any of the plaintiff's expert witnesses at trial.

#### ***IV. CONCLUSION***

Louisville's motion to exclude the testimony of the plaintiffs' experts is **granted in part and denied in part**, as set forth above.

**IT IS SO ORDERED.**

**DATED** this 8th day of January, 2003.

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PAUL A. ZOSS  
MAGISTRATE JUDGE  
UNITED STATES DISTRICT COURT